

What is claimed is:

1. A rice plant in which a P5CS ( $\Delta^1$ -pyrroline-5-carboxylate (P5C) synthetase) gene of rice containing the sequence according to SEQ ID NO. 1 has been introduced.

2. A rice plant in which a P5CS ( $\Delta^1$ -pyrroline-5-carboxylate (P5C) synthetase) gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 2 has been introduced.

3. A rice plant in which the antisense (reverse DNA sequence-containing) gene of a ProDH (Proline dehydrogenase) gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 3 has been introduced.

4. A rice plant in which a P5CS gene of rice containing the sequence according to SEQ ID NO. 1, or a P5CS gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 2, and the antisense gene of a ProDH gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 3 have been introduced.

5. A rice plant in which a P5CS gene of rice containing the sequence according to SEQ ID NO. 1, or a P5CS gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 2, and the antisense gene of a ProDH gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 3 have been introduced in tandemly connected relation to each

other.

6. A vector in which any of a P5CS gene of rice containing the sequence according to SEQ ID NO. 1, a P5CS gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 2, and the antisense gene of a ProDH gene of Arabidopsis thanliana containing the sequence according to SEQ ID NO. 3 has been introduced, or said P5CS gene of rice or Arabidopsis thanliana and said antisense gene of said ProDH gene of Arabidopsis thanliana have been introduced in tandemly connected relation to each other.

7. A rice plant obtained by introducing said vector according to claim 6 into calli derived from a rice plant to grow said calli, and then regenerating a plant body from said calli.

8. A rice plant obtained by introducing said vector according to claim 6 into a protoplast derived from a rice plant, growing said protoplast to obtain a colony, and then regenerating a plant body from said colony.

9. A rice plant obtained by crossing with a rice plant obtained by introducing said vector according to claim 6 therein by genetic engineering, wherein said vector according to claim 6 has been introduced.

10. The rice plant according to any of claims 1 to 9, wherein said rice plant is rice.

11. A seed of a rice plant collected from said

rice plant according to any of claims 1 to 9.

12. A seed of the rice plant according to any of claims 1 to 9, wherein said rice plant is rice, said seed having been collected from said rice.

13. A production method of a rice plant, comprising: introducing said vector according to claim 6 into calli derived from a rice plant by using *Agrobacterium tumefaciens* to grow said calli; and then regenerating a plant body from said calli.

14. A production method of a rice plant, comprising: introducing said vector according to claim 6 into a protoplast derived from a rice plant by electroporation, and growing said protoplast to obtain a colony, and regenerating a plant body from said colony.

15. A production method of a rice plant, comprising: crossing with a rice plant obtained by introducing said vector according to claim 6 by genetic engineering, and introducing said vector according to claim 6 therein.